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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,417	06/30/2000	Reed J. Sloss	042390.P8795	9524

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EXAMINER

DUONG, THOMAS

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 09/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/608,417

Applicant(s) <sup>PRQ</sup>

SLOSS, REED J.

Examiner

Thomas Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claim 1* are rejected under 35 U.S.C. 102(b) as being anticipated by Monteiro et al. (U.S. Patent No. 5,778,187).

2. With regard to *claim 1*, Monteiro reference discloses,
  - *a primary root splitter to split a data stream transmitted from an upstream server into a plurality of leaf splitter streams (column 3, lines 17-24; sheet 3, figure 3).*
  - *a plurality of leaf splitters to split each of said leaf splitter streams into a plurality of end user streams, wherein one or more of said plurality of leaf splitters is a backup root splitter (column 3, lines 17-24; sheet 3, figure 3).*
  - *root splitter reassignment logic to reassign one of said backup root splitters as a new primary root splitter responsive to detecting a problem with said primary root splitter (sheet 2, figure 2).*

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

*Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Tzelnic et al. (U.S. Patent No. 6,061,504).*

4. With regard to *claim 1*, Tzelnic reference discloses,
- *a primary root splitter to split a data stream transmitted from an upstream server into a plurality of leaf splitter streams (sheet 14, figure 16).*
  - *a plurality of leaf splitters to split each of said leaf splitter streams into a plurality of end user streams, wherein one or more of said plurality of leaf splitters is a backup root splitter (sheet 14, figure 16).*
  - *root splitter reassignment logic to reassign one of said backup root splitters as a new primary root splitter responsive to detecting a problem with said primary root splitter (column 5, lines 35-44).*
5. With regard to *claims 2 and 20*, Tzelnic reference discloses,
- *a load balancer module to direct client streaming requests to particular leaf splitters based on relative load on said leaf splitters (columns 7-8, lines 53-3).*

6. With regard to *claims 3 and 21*, Tzelnic reference discloses,
- *redirection subsystem to redirect client streaming requests to a particular point of presence site* (column 7-8, lines 53-3).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Claims 4-7, 12-16 and 23-24* are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzelnic et al. (U.S. Patent No. 6,061,504) and further in view of Bader et al. (U.S. Patent No. 6,112,249).

*Claims 8-11, 17-19 and 22* are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzelnic et al. (U.S. Patent No. 6,061,504) and further in view of Rowett (U.S. Patent No. 5,448,723).

8. With regard to *claims 4-7, 12-16 and 23-24*, Tzelnic reference discloses,
- *a load balancer module to direct client streaming requests to particular leaf splitters based on relative load on said leaf splitters* (columns 7-8, lines 53-3). However, Tzelnic reference does not explicitly disclose,
  - *load balancer update logic for removing said backup leaf splitter from said plurality of leaf splitters to which said load balancer directs user streaming*

*requests responsive to said backup root splitter being reassigned as a primary root splitter.*

Bader teaches,

- *load balancer update logic for removing said backup leaf splitter from said plurality of leaf splitters to which said load balancer directs user streaming requests responsive to said backup root splitter being reassigned as a primary root splitter (column 7-8, lines 58-5).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Bader reference with Tzelnic reference to maximize the availability and maintain the reliability of the network by providing a more fault tolerant network design using redundant parts, alternate communication links, data checking and correction and other measures that help avoid failures.

9. With regard to *claims 8-10 and 19*, Tzelnic reference discloses,

- *a primary root splitter to split a data stream transmitted from an upstream server into a plurality of leaf splitter streams (sheet 14, figure 16).*
- *a plurality of leaf splitters to split each of said leaf splitter streams into a plurality of end user streams, wherein one or more of said plurality of leaf splitters is a backup root splitter (sheet 14, figure 16).*
- root splitter reassignment logic to reassign one of said backup root splitters as a new primary root splitter responsive to detecting a problem

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with said primary root splitter (*column 5, lines 35-44*). However, Tzelnic reference do not explicitly disclose,

- *monitoring logic for monitoring said primary root splitter to determine whether said root splitter is operating within normal parameters.*

Rowett teaches,

- *monitoring logic for monitoring said primary root splitter to determine whether said root splitter is operating within normal parameters (column 2, lines 14-26).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Rowett reference with Tzelnic reference to provide a high availability networking system that can reconfigure itself in the event of a fault making it transparent to the applications running on the network system.

10. With regard to *claim 11, 17-18 and 22*, Tzelnic reference discloses,

- *said primary root splitter to split a single data stream into multiple data streams transmitted to multiple leaf splitters (sheet 14, figure 16).*

However, Tzelnic reference do not explicitly disclose,

- *monitoring a primary root splitter to ensure that said primary root splitter is operating within predefined parameters.*
- *reassigning one of said leaf splitters as a new primary root splitter responsive to detecting that said primary root splitter is not operating within said predefined parameters.*

Rowett teaches,

- *monitoring a primary root splitter to ensure that said primary root splitter is operating within predefined parameters (column 2, lines 14-26).*
- *reassigning one of said leaf splitters as a new primary root splitter responsive to detecting that said primary root splitter is not operating within said predefined parameters (column 2, lines 14-26).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Rowett reference with Tzelnic reference to provide a high availability networking system that can reconfigure itself in the event of a fault making it transparent to the applications running on the network system.

### **Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
  - Blumenau et al. (U.S. Patent No. 6,438,595 B1)
  - Goldszmidt et al. (U.S. Patent No. 6,195,680 B1)
  - Ballard (U.S. Patent No. 6,078,960)
  - Yu (U.S. Patent No. 6,351,775 B1)
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Duong whose telephone number is



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703/305-1886. The examiner can normally be reached on M-F 7:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 703/308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703/305-3719 for regular communications and 703/305-3719 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703/305-3900.

Thomas Duong

Examiner

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September 12, 2003

  
DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100